

## **2. Remarks/Discussion of Issues**

### **Claim Summary**

By the Amendment, claim 12 has been canceled, without prejudice and without disclaimer of the subject matter. Claims 1-11 have been amended to address informalities in the claim language and to more clearly define the invention. Claims 13-17 have been submitted for the Examiner's consideration. No new matter has been added.

Claims 1-11 and 13-17 remain pending in the application. Applicants respectfully submit that all pending claims are in condition for allowance.

### **Rejection under 35 U.S.C. § 101**

In the Office Action, dated November 29, 2007, the Examiner rejected claim 12 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Without admitting to the propriety of the Examiner's rejection, Applicants have canceled claim 12, without prejudice and without disclaimer of subject matter. Therefore, the rejection of claim 12 is moot.

Applicants note that newly submitted claim 17 is directed to a computer readable medium and substantially incorporates the subject matter recited in amended claim 1. Applicants respectfully submit that claim 17 is directed to statutory subject matter.

### **Rejections under 35 U.S.C. § 103 – Claims 1-3, 6, 10-12**

Claims 1-3, 6 and 10-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over et al. FLÓREZ-VALENCIA et al. ("3D Graphical Models for Vascular-Stent Pose Simulation") in view of HERNÁNDEZ-HOYOS et al. ("Computer-assisted Analysis of Three-dimensional MR Angiograms") in view of MONTAGNAT et al. ("A Hybrid Framework for Surface Registration and Deformable Models") and further in view of YIM et al. ("Vessel Surface Reconstruction with a Tubular Deformable Model"). Applicants respectfully traverse the rejections for at least the reasons set forth below.

As stated in MPEP § 2143, in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Without conceding the propriety of the combination of references, Applicants respectfully submit that the rejection is improper for failing to meet the ultimate requirement of § 2143.

Claim 1 features, inter alia:

*“...automatically adapting a mesh radius of each path segment based on a curvature of the corresponding path segment, a distance between the ordered points defining the corresponding path segment, and a predefined input radius.”*

No proper combination of the applied references teaches or suggests at least these claim features.

The Office Action asserts that automatically adapting a mesh radius is taught by FLÓREZ-VALENCIA et al., p. 3, ¶3; p. 5, ¶3; p. 6, ¶1 and Figs. 2-4. *See* Office Action, p. 3. However, referring to the cited portions, FLÓREZ-VALENCIA et al. generally discloses identifying a vessel centerline for a stent (e.g., Fig. 2), stacking contours orthogonal to the centerline (e.g., Figs. 2 and 3; p. 3, ¶2), mapping an initial straight model of the stent onto the vessel centerline (e.g., p. 3, ¶2), and creating a simplex mesh to represent the stent surface (e.g., p. 3, ¶3).

However, there appears to be no teaching in FLÓREZ-VALENCIA et al. of automatically adapting the mesh radius. In fact, the cylindrical simplex model combines the mapped centerline and a radius r (e.g., p. 6, ¶3). The radius r does not appear to be adjusted along segments, and further, is not adjusted based on the parameters recited in claim 1: “curvature of the 3-D path, a distance between consecutive ordered points of the path, and a predefined input radius.”

Accordingly, for at least the reasons set forth above, Applicant respectfully submit that the applied art fails to disclose at least one feature of claim 1. Thus a *prima facie* case of obviousness has not been established. Therefore, withdrawal of the rejection of claim 1 under 35 U.S.C. § 103(a) respectfully requested. With regard to claims 3, 6 and 10-11 (as well as

newly submitted claim 13), Applicants assert that they are allowable at least because they depend, directly or indirectly, from independent claim 1, which Applicants submit has been shown to be allowable, and in view of their additional recitations of novelty.

Further, Applicants respectfully submit that newly submitted claims 14 and 17 are allowable for at least substantially the same reasons as discussed above with respect to claim 1. With regard to newly submitted claims 15 and 16, Applicants assert that they are allowable at least because they depend, directly or indirectly, from independent claim 14, which Applicants submit has been shown to be allowable, and in view of their additionally recited subject matter.

#### **Rejections under 35 U.S.C. § 103 – Claims 4, 5, 7-9**

In the Office Action, dated November 29, 2007, the Examiner rejected claims 4, 5 and 7-9 under 35 U.S.C. § 103(a) as being unpatentable over et al. FLÓREZ-VALENCIA et al., HERNÁNDEZ-HOYOS et al., MONTAGNAT et al. and YIM et al. in view of WILLIAMS et al. (“Rational Discrete Generalized Cylinders and their Application to Shape Recovery in Medical Images”). Applicants respectfully traverse the rejections for at least the reasons set forth below.

With regard to claims 4, 5 and 7-9, Applicants assert that they are allowable at least because they depend, directly or indirectly, from independent claim 1, which Applicants submit has been shown to be allowable, and in view of their additional recitations of novelty.

#### **CONCLUSION**

No other issues remaining, reconsideration and favorable action upon the claims 1-11 and 13-17 now pending in the application are requested.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:  
Phillips Electronics North America Corp.

s/William S. Francos/

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